

130273-10

**REMARKS**

Claims 11 - 30 are pending in the present Application. No claims have been canceled, amended, or added, leaving Claims 11 - 30 for consideration upon entry of the present Amendment.

No new matter has been introduced by these amendments or new claims. Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 103(a)

Claims 11-30 stand rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over U.S. Patent No. 5,571,875 to Tsutsumi et al. (Tsutsumi) in view of U.S. Patent No. 5,856,403 to Senga et al. (Senga) and EP 0418719. (Office Action dated 01/30/2006, page 2) Applicants respectfully traverse this rejection.

In making the rejection, the Office Action has stated that "[I]t would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to combine polyetherimide resins and polyester resins in the manner taught by either of Tsutsumi or Senga, in conjunction with a fibrous and non-fibrous filler of the two references with the expectation of achieving appreciable properties in mechanical strength dimensional precision and good electrical characteristics, absent a clear showing of unexpected results attributable to the combination of fillers employed." (Office Action dated 01/30/2006, page 4)

The Office Action has further stated that "[t]he polyarylene sulfides of the EP resins are equated to the polyesters of Tsutsumi or Senga as being suitable thermoplastics for forming admixtures." (Office Action dated 01/30/2006, page 5)

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art; that the prior art relied upon, coupled with knowledge generally available in the art at the time of the invention, contain some suggestion or incentive that would have motivated the skilled artisan to modify a reference or combined references; and that the proposed modification of the prior art had a reasonable expectation of success, determined from the vantage point of the skilled artisan at the time the invention was made. *In re Fine*, 5

130273-10

U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Tsutsumi teaches a molding composition comprising a polyimide resin and 0.1 to 50wt% of a polyether ketone and/or a polyester resin. (see abstract) Tsutsumi teaches that the polyimide based resin composition can contain fibers, fillers and other additives. (see Col. 19, lines 6 – 19) Tsutsumi however, does not teach the use of polyetherimides as presently claimed. The Examiner appears to have inadvertently equated the polyimides of Tsutsumi with the claimed polyetherimides. In the first instance, Tsutsumi specifically excludes polyetherimides from its structures. In Col. 2, lines 6 – 20, Tsutsumi specifically states that X in its structure (I) can be a direct bond, a divalent hydrocarbon having 1 to 10 carbon atoms, hexafluorinated isopropylidene, carbonyl, thio or sulfonyl. Tsutsumi in not teaching that X can be an ether linkage has specifically excluded polyetherimides.

It is further to be noted that polyimides are quite different from polyetherimides. Applicants have included two property sheets in Appendix A – one for polyimides and one for polyetherimides. From the property sheets it can be seen that the thermal properties for polyimides differs quite significantly from polyetherimides. For example, the glass transition temperature (glass temperature) for polyimides (on page 3 of the polyimide property sheets) ranges from 323 to 340°C, while the glass transition temperature for polyetherimides (on page 3 of the polyimide property sheets) ranges from 215 to 220°C. Thus polyimides are different from polyetherimides and cannot be substituted for them as has been done by the Examiner. Tsutsumi in teaching polyimides instead of polyetherimides does not teach all elements of the claimed invention. Further, by not teaching polyetherimides, Tsutsumi does not teach a combination of polyetherimides with other thermoplastic resins selected from polyphenylene ether, polyester, polycarbonate, polyester carbonate, polyamide, polyolefin, and polyether as is presently claimed.

Senga teaches a process for manufacturing a polyarylene sulphide copolymer resin with an elastomer dispersed throughout the resin matrix. (col. 1, line 46 through col. 1, line 55) Senga discloses that the polyarylene sulphide copolymer resin can be blended with organic or inorganic filler material. (col. 2, line 5 through col. 2, line 7) The filler may either be in the form of a fiber or may have a non-fibrous form. (col. 6, line 11 through col. 6, line 65) Senga, like Tsutsumi, does not teach combinations of polyetherimides with polyphenylene ethers, polyesters,

130273-10

polycarbonates, polyester carbonates, polyamides, polyolefins, or polyethers. Senga, therefore does not make up for the deficiency of Tsutsumi.

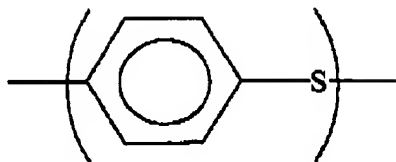
EP 0418719 teaches a thermoplastic molding composition comprising 10-94 wt% polyaryletherketone, polyarylene sulphide, polyether imide or mixtures of thereof, 0-80 wt% polyarylethersulphone, 3-40 wt% glass fiber and 3-25 wt% of an alkaline earth metal carbonate salt. (Page 2) EP 0418719, like Tsutsumi, does not teach the use of a nonfibrous inorganic filler in conjunction with a fibrous filler. EP 0418719, like Tsutsumi and Senga does not teach a combination of polyetherimides with other thermoplastic resins selected from polyphenylene ether, polyester, polycarbonate, polyester carbonate, polyamide, polyolefin, and polyether as is presently claimed. Thus, the combination of Tsutsumi with Senga and EP 0418719 does not teach all of the claimed elements.

Additionally, there is no motivation to combine Tsutsumi with either Senga or EP 0418719. In the first instance, since none of the references either individually or in combination teaches all elements of the claimed invention, one of ordinary skill in the art would be motivated to combine these references.

In addition, Senga teaches and discloses polyarylene sulfide copolymers, which are not claimed by the Applicant. One of skill in the art desirous of creating blends of polyetherimide resins with polyphenylene ethers, polyesters, polycarbonates, polyester carbonates, polyamides, polyolefins, and polyethers would not look for a reference that discloses a method of manufacturing polyarylene sulfide copolymers and selectively extract the fillers for incorporation into its blends.

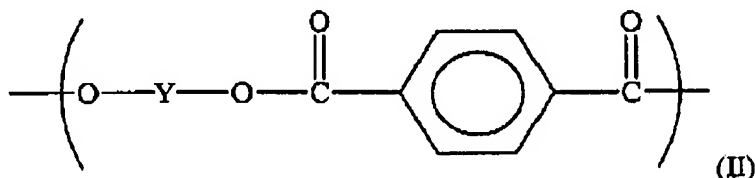
As noted above, the Examiner has equated the polyarylene ether sulfides of EP 0418719 with the polyesters of Tsutsumi or Senga. In the first instance, it is submitted to the Examiner that EP 0418719 does not teach polyarylene ether sulfides, but rather polyarylene sulfides. Additionally, one of ordinary skill in the art would not automatically assume that polyarylene sulfides can replace polyesters in blends with polyether imides. Polyarylene sulfides are high temperature thermoplastics that have a structure shown in equation (I) below:

130273-10



(I)

whereas polyesters generally have the structure shown in the equation (II) below:



(II)

In addition to possessing different molecular structures, polyphenylene sulfides have different glass transition temperatures, different solubility parameters, different melting points, and the like, from polyesters and one of ordinary skill in the art would not presume that a polyester may be replaced with a polyarylene sulfide (or vice versa) for forming admixtures. Thus one of ordinary skill in the art would not be motivated to combine references.

In conclusion, the Applicants believe that the Examiner has not made a *prima facie* case of obviousness over Tsutsumi in view of Senga and EP 0418719. Since the references cited by the Examiner do not teach all of the claimed elements and further since there is no motivation to combine references, Applicants respectfully request a withdrawal of the obviousness rejection and an allowance of the claims.

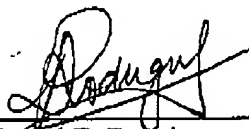
130273-10

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and withdrawal of the objection(s) and rejection(s) and allowance of the case are respectfully requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 50-2341.

Respectfully submitted,

CANTOR COLBURN LLP

By   
David E. Rodrigues  
Registration No. 50,604

Date: April 27, 2006  
CANTOR COLBURN LLP  
55 Griffin Road South  
Bloomfield, CT 06002  
Telephone (860) 286-2929  
Facsimile (860) 286-0115  
Customer No.: 23413